

**Bird Diversity in Tamarind Grove, Village- Nallur,
Taluk -Devanahalli, District -Bangalore**

Investigator

Harish Bhat

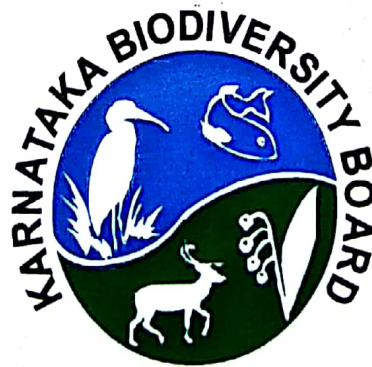
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Devanahalli, District Bangalore.**

**Karnataka Biodiversity Board
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2008**

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(Forest, Ecology and Environment Dept.)



Forward

The Tamarind Groves in Nallur Gramapanchayath of Devenahalli taluk (Bangalore District) has been declared as a Heritage Site by the Government of Karnataka under Biological Diversity Act 2002 and Karnataka Biological Diversity Rules 2005. The Tamarind Grove has unique Biodiversity. The trees are growing from prop roots like Ficus tree. There are very old trees. The area has lot of historical and cultural values. The villagers have taken pains to preserve the Biodiversity of the Groves. There are lot of Bird Biodiversity especially Raptors of various kinds. A study was conducted on Bird Biodiversity of the Heritage Site. This report will be a record for the Bird Biodiversity in the area and will be useful reference material for Research in Biodiversity.


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We are grateful to Karnataka Biodiversity Board for providing the financial support in carrying out the study on Bird Diversity study with special reference to Owls and other raptors at Nallur Tamarind Grove for a period of one year. We are also thankful to Shri Prajapathi, IFS, Member Secretary and Additional PCCF, Karnataka Biodiversity Board for providing opportunity and support to carry out this study. The staff of Karnataka Biodiversity Board have also helped us in many ways during this project.

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(Research Team)

Bird Diversity study with special reference to Owls and other raptors at Nallur Tamarind Grove

PREAMBLE

From Devanahalli, on the highway to Hosur, a right diversion that is a little over a kilometre leads to Nallur. The nearest town, Vijayapura, is 12 kms away. The entire stretch starting from Venkatapura used to be an army stronghold in the days of yore. Nallur is a very old settlement (800 years), going by the contours of the land and an extensive patch that was probably demarcated as the royal area. It had a fort ruled by the powerful Paleygars, of whom Choudaraya was the most valiant. The treachery by his daughter in making known the secret underground passage that brought water to the city saw the fall of this fort.

RICHNESS

The location is known as Nallur Chintalu. This entire area harbours unique Tamarind grove spanning to an area of 30 acres, situated at Ballepura of Devanahalli Taluk, Bangalore Rural District. There are about 130 old Tamarind trees, aging about 600 – 800 years! The largest tree in this grove is having the circumference of 20 feet and a height of about 30 feet. All these old trees have artistic warty markings on the stem. The yield from these Tamarind trees is auctioned every year by the forest department. Some of the plants commonly found in this area are: Wood Apple (*Ferronia elephantum*), Banyan (*Ficus benghalensis*), Neem (*Azadirachta indica*), Jagalganti (*Diospyrus montana*), Uppi gida (*Balanitis roxburghii*), Taggi gida (*Gmelina asiatica*) and Bore hannu (*Zizyphus jujube*). Some of the animals and snakes spotted here are: Jackals, Porcupine, Black-naped Hare, Pangolin and Slender Loris; Snakes like Russell's Viper, Cobra, Saw Scaled Viper, and Rat Snake.

This Tamarind grove is quite rich with avifauna, specially the raptors. Owls that were roosting on these trees on NH7, have now made there home at

Nallur Tamarind grove which is very suitable to them. From our last observation made, a call of Short-Eared Owl (*Asio flammeus*), a migratory bird which migrates from Tundra and Arctic Region was heard. This needs to be looked at in detail and proper study need to be conducted. The grove requires proper protection of their roosting places. Owls in particular prefer tall and old trees for roosting and breeding.

METHODOLOGY

1. Hour count survey to assess the bird diversity of the study area
2. All out search method to get over all list of the birds in that area
3. Identify the roosting trees of Owls and study the feeding pattern and behaviour of them during dawn (6 am to 8 am) and dusk (6 pm to 8 pm).

STUDY TEAM

Manjunath P., Harish Bhat, Pramod Subbarao, Nitin S., Vinay K.

FINDINGS

Study was carried out from 14th July 2007 to 27th June 2008 during early morning and evening hours to find out the bird diversity of the region by the above methods and also to study the distribution of Owl species along with their behavioural ecology. The data proves that the Owl diversity is quite rich when compared to other raptors in the study area. Apart from these, there are totally about 77 species of birds that were enlisted during the study. (Please see Annexure 1 – 3, Annexure 4 contains some of the photographs taken at the Tamarind grove)

The survey was conducted over a period of a year, thus covering all the seasons namely, monsoon, winter and summer. The study reveals quite good number of raptors and other birds. Rare raptors like Tawny Eagle (*Aquila rapax*), Egyptian Vulture (*Neophron percnopterus*) and Red-headed Falcon (*Falco chicquera*) were sighted between February and June during the study. The trees at Nallur Tamarind grove harbour about 6 species of Owls, proving to be a perfect habitat for owls. Many tree holes provided the roosting and breeding sites. These tree holes prove to be an important micro habitat for these owls.

During January to early April, only spotted owlets were more actively sighted, due to their breeding season. Mottled-Wood owls were sighted actively during October to May, as it was breeding period of these birds. Barn Owls were sighted almost throughout the year as they breed throughout without particular season. The food availability and required habitat could be one of the reasons for the owls to reside at this forest patch. Apart from raptors other bird species are quite large in number that resides and visits this habitat.

There are a few migratory birds - Black Redstart (*Phoenicurus ochruros*), Blyth's Reed-Warbler (*Acrocephalus dumetorum*), Booted Warbler (*Hippolais caligata*), Rosy Starling (*Sturnus roseus*), Greenish Leaf-Warbler (*Phylloscopus trochiloides*) coming to this area as it is a convenient location.

RECOMMENDATIONS

1. This habitat is vital for raptors and other birds, particularly owls, as it harbours huge trees, required for them to roost. This requires ample protection for these old trees. Tree surgery to be taken up, if possible, to make them stable.
2. The entire area requires immediate fencing as there is lot of anthropogenic pressures, be it grazing or chopping tree branches. To maintain the ground vegetation intact and provide protection to the ground birds, regulated grazing could be allowed with permission.
3. There is a small water body, which could be widened ecologically, keeping in mind this water body as a pond ecosystem, maintaining slopes and vegetation cover, by means of water harvesting, enabling it to increase water level.
4. Board to be installed, depicting the history of the location, another detailing regarding heritage site declaration, one more pictorial board briefing flora and fauna seen in this area.

5. Sign boards from Devanahalli to Nallur to be installed at regular intervals, so as to guide the needy.
6. A watcher or a guard to be posted at the location so as to safeguard the area and regulate activities.

ANNEXURE 1

Owl diversity and sighting according to season and timings:

Month	Morning/Evening	Owl Species
Early July	Morning	Spotted Owlet
July end	Evening	Spotted Owlet, Barn Owl, Eurasian Eagle Owl and Heard Call of Eurasian Scops Owl.
Early August	Morning	Spotted Owlet
August end	Evening	Only calls of Spotted Owlet
Early September	Morning	Spotted Owlet
September end	Evening	Spotted Owlet, Barn Owl
Early October	Morning	Oriental Scops Owl and Spotted Owlet
Late October	Evening	Mottled Wood Owl and Spotted Owlet
Early November	Morning	Eurasian Eagle Owl, Mottled Wood Owl and Spotted Owlet
Late November	Evening	Oriental Scops Owl, Mottled Wood Owl and Spotted Owlet
Early December	Morning	Oriental Scops Owl, and Spotted Owlet
Late December	Evening	Spotted Owlet
Early January	Morning	Mottled Wood Owl and Spotted Owlet
Late January	Evening	Spotted Owlet
Early February	Morning	Spotted Owlet
Late February	Evening	Spotted Owlet
Early March	Morning	Spotted Owlet
Early April	Morning	Spotted Owlet
Late April	Evening	Barn Owl, Mottled Wood Owl and

Month	Morning/Evening	Owl Species
		Spotted Owlet
Early May	Morning	Spotted Owlet
Late May	Evening	Mottled Wood Owl and Spotted Owlet
Early June	Morning	Spotted Owlet

ANNEXURE 2

Other raptors sighted

Month of July Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)

Month of July Evening

1. Black Kite (*Milvus migrans*)

Month of August Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Shikra (*Accipiter badius*)

Month of August Evening

1. Black Kite (*Milvus migrans*)

Month of September Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)

Month of September Evening

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)

Month of October Early morning

1. Black Kite (*Milvus migrans*)
2. Shikra (*Accipiter badius*)

Month of October Evening

1. Black Kite (*Milvus migrans*)

Month of November Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Shikra (*Accipiter badius*)

Month of November Evening

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Shikra (*Accipiter badius*)

Month of December Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)

Month of December Evening

1. Black Kite (*Milvus migrans*)

Month of January Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Shikra (*Accipiter badius*)

Month of January Evening

1. Black-shouldered Kite (*Elanus caeruleus*)
2. Black Kite (*Milvus migrans*)
3. Brahminy Kite (*Haliastur indus*)
4. Shikra (*Accipiter badius*)

Month of February Early morning

1. Black-shouldered Kite (*Elanus caeruleus*)
2. Black Kite (*Milvus migrans*)
3. Brahminy Kite (*Haliastur indus*)
4. Tawny Eagle (*Aquila rapax*)

Month of February Evening

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Shikra (*Accipiter badius*)

Month of March Early morning

1. Black Kite (*Milvus migrans*)
2. Egyptian Vulture (*Neophron percnopterus*)

Month of April Early morning

1. Black Kite (*Milvus migrans*)
2. Red-headed Falcon (*Falco chicquera*)

Month of April Evening

1. Black Kite (*Milvus migrans*)

Month of May Early morning

1. Black Kite (*Milvus migrans*)
2. Tawny Eagle (*Aquila rapax*)
3. Red-headed Falcon (*Falco chicquera*)

Month of May Evening

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)
3. Egyptian Vulture (*Neophron percnopterus*)

Month of June Early morning

1. Black Kite (*Milvus migrans*)
2. Brahminy Kite (*Haliastur indus*)

ANNEXURE 3

Birds other than raptors and owls:

1. Ashy Drongo (*Dicrurus leucophaeus*)
2. Ashy Prinia (*Prinia socialis*)
3. Ashy Woodswallow (*Artamus fuscus*)
4. Asian Koel (*Eudynamys scolopacea*)
5. Asian Paradise-Flycatcher (*Terpsiphone paradisi*)
6. Baya Weaver (*Ploceus philippinus*)
7. Black Drongo (*Dicrurus macrocercus*)
8. Black Redstart (*Phoenicurus ochruros*)
9. Blue Rock Pigeon (*Columba livia*)
10. Blue-headed Rock Thrush (*Monticola cinclorhynchus*)
11. Blyth's Reed-Warbler (*Acrocephalus dumetorum*)
12. Booted Warbler (*Hippolais caligata*)
13. Brahminy Starling (*Sturnus pagodarum*)
14. Cattle Egret (*Bubulcus ibis*)
15. Common Cuckoo (*Cuculus canorus*)
16. Common Golden-backed Woodpecker (*Dinopium javanense*)
17. Common Hawk Cuckoo (*Hierococcyx varius*)
18. Common Hoopoe (*Upupa epops*)
19. Common Indian Nightjar (*Caprimulgus asiaticus*)
20. Common Iora (*Aegithina tiphia*)
21. Common Myna (*Acridotheres tristis*)
22. Common Sandpiper (*Actitis hypoleucos*)
23. Common Stonechat (*Saxicola torquata*)
24. Common Swallow (*Hirundo rustica*)
25. Common Tailorbird (*Orthotomus sutorius*)
26. Coppersmith Barbet (*Megalaima haemacephala*)
27. Dusky Crag Martin (*Hirundo concolor*)
28. Eurasian Golden Oriole (*Oriolus oriolus*)

29. Great Tit (*Parus major*)
30. Greater Coucal (*Centropus sinensis*)
31. Greenish Leaf-Warbler (*Phylloscopus trochiloides*)
32. Grey Francolin (*Francolinus pondicerianus*)
33. House Swift (*Apus affinis*)
34. Indian Pitta (*Pitta brachyura*)
35. Indian Pond Heron (*Ardeola grayii*)
36. Indian Roller (*Coracias benghalensis*)
37. Indian Robin (*Saxicoloides fulicata*)
38. Indian Treepie (*Dendrocitta vagabunda*)
39. Jerdon's Chloropsis (*Chloropsis cochinchinensis*)
40. Jungle Babbler (*Turdoides striatus*)
41. Jungle Bush-Quail (*Perdica asiatica*)
42. Jungle Crow (*Corvus macrorhynchos*)
43. Jungle Myna (*Acridotheres fuscus*)
44. Lesser Golden-backed Woodpecker (*Dinopium benghalense*)
45. Large Cuckoo-Shrike (*Coracina macei*)
46. Large Pied Wagtail (*Motacilla maderaspatensis*)
47. Little Brown Dove (*Streptopelia senegalensis*)
48. Oriental Magpie Robin (*Copsychus saularis*)
49. Oriental White-eye (*Zosterops palpebrosus*)
50. Pied Bushchat (*Saxicola caprata*)
51. Purple-rumped Sunbird (*Nectarinia zeylonica*)
52. Purple Sunbird (*Nectarinia asiatica*)
53. Red Munia (*Amandava amandava*)
54. Red-vented Bulbul (*Pycnonotus cafer*)
55. Red-wattled Lapwing (*Vanellus indicus*)
56. Red-whiskered Bulbul (*Pycnonotus jocosus*)
57. Red-winged Bushlark (*Mirafra erythroptera*)
58. Rose-ringed Parakeet (*Psittacula krameri*)
59. Rosy Starling (*Sturnus roseus*)
60. Siberian Stonechat (*Saxicola torquata*)
61. Small Bee-eater (*Merops orientalis*)
62. Small Green-billed Malkoha (*Phaenicophaeus viridirostris*)

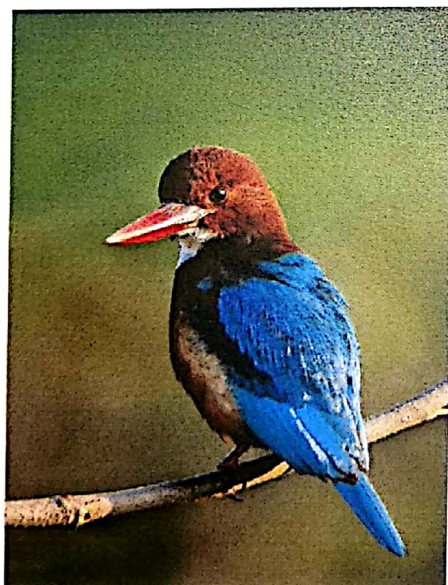
63. Small Minivet (*Pericrocotus cinnamomeus*)
64. Spotted Dove (*Streptopelia chinensis*)
65. Spotted Munia (*Lonchura punctulata*)
66. Streaked Fantail Warbler (*Cisticola juncidis*)
67. Sykes's Crested Lark (*Galerida deva*)
68. Tickell's Flowerpecker (*Dicaeum erythrorhynchos*)
69. Verditer Flycatcher (*Eumyias thalassina*)
70. White-bellied Drongo (*Dicrurus caerulescens*)
71. White-breasted Kingfisher (*Halcyon smyrnensis*)
72. White-breasted Waterhen (*Amauromis phoenicurus*)
73. White-browed Bulbul (*Pycnonotus luteolus*)
74. White-cheeked Barbet (*Megalaima viridis*)
75. White-headed Babbler (*Turdoides affinis*)
76. White-throated Munia (*Lonchura malabarica*)
77. Yellow-legged Buttonquail (*Turnix tanki*)

ANNEXURE 4

Some of the photographs are seen here as photographed at the Nallur Tamarind grove. (The copyright of the photograph rests with respective photographer)



Spotted Owlet



White Breasted King Fisher



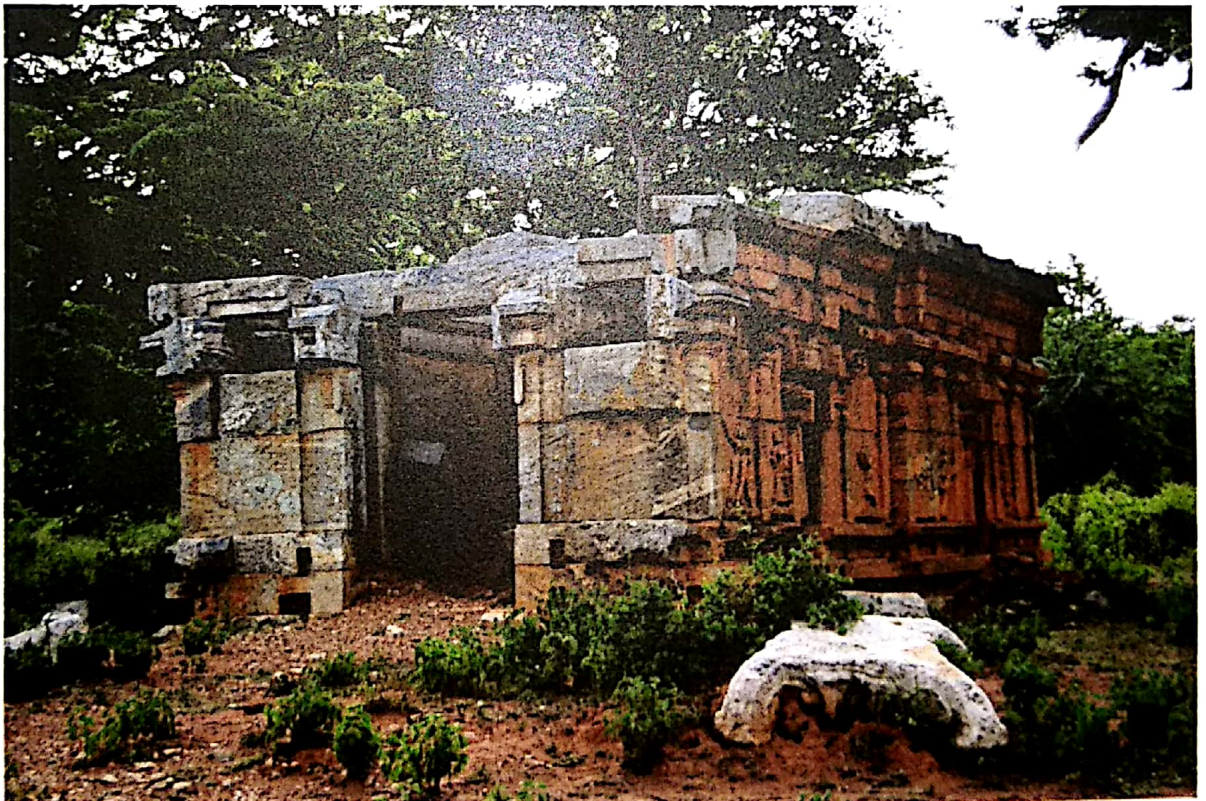
Red Headed Falcon



Shikra



Tawny Eagle



Temple



Tamarind Tree 1



Tamarind Tree 2